

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 022002-03

Paper No. 3

Group Art Unit 3672

In re Application of:
David Lush et al.

Application No. 10/717,046
Filed November 19, 2003

SUBSEA RISER SEPARATOR SYSTEM

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

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April 22, 2004

4/22/04
(DATE SIGNED)

Yale S. Finkle
YALE S. FINKLE
REG. NO. 27,547

Sir:

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR 1.97 AND 1.98

It is respectfully requested that the Examiner
consider disclosures AA-AR, BA-BK, BM-BR, CA and CC-CN
identified on the attached three sheets of Form 1449 in
relation to his or her examination of the above-identified
patent application.

Since copies of disclosures AA-AJ, AM-AR, BA, BC-BE,
BG-BK, BM-BR, CA and CC-CN were either (1) submitted to the
Patent and Trademark Office (PTO) in Applicants' parent case,
Application No. 10/138,020 filed on May 2, 2002, now U.S.
Patent No. 6,651,745, which case is being relied upon for an
earlier filing date under 35 USC 120, or (2) cited by the PTO
in this earlier case, submission of copies of these
disclosures is not required by 37 CFR 1.98(d). However, since
disclosures AH, AO, AR, BA, BD and BO appear to the
undersigned to be at least somewhat more relevant to the
claimed invention than the other disclosures of record in the
parent case, copies of these documents are enclosed for the
convenience of the Examiner. Disclosures AK, AL, BB, and BF
were not listed on the cover pages of U.S. Patent 6,651,745,
which issued on the parent application. Thus, copies of these
documents are enclosed for the Examiner's consideration.

A concise explanation of the relevance of the
disclosures identified on the attached three sheets of Form

Information Disclosure Statement
Continuation of Application No. 10/138,020
Docket No. 022002-03

1449 have not been included in this disclosure statement since 37 CFR 1.98, as revised and made effective on March 16, 1992, no longer requires such an explanation for disclosures in the English language.

Since a first Office Action on the merits in this application has not yet been mailed, 37 CFR 1.97(b)(3) makes it clear that the submission of this disclosure statement is timely, and therefore the statement should be considered by the Examiner.

Disclosures AA-AR, BA-BK, BM-BR, CA and CC-CN are not admitted prior art. The Examiner is respectfully requested to consider these disclosures, place his or her initials in the appropriate location on the attached sheets of Form 1449 indicating that the Examiner has done so, and return a copy of each sheet with the Examiner's next communication in accordance with the procedure set forth in Section 609 of the Manual of Patent Examining Procedure.

Respectfully submitted,

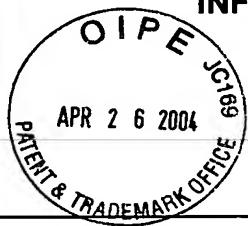


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April 22, 2004

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INFORMATION DISCLOSURE STATEMENT



ATTORNEY
DOCKET NO:
022002-03

APPL. NO.
10/717,046

APPLICANT
David Lush et al.

FILING DATE
Nov. 19, 2003

GROUP
3672

U. S. PATENT DOCUMENTS

*Exam. Initial		DOCUMENT NUMBER								DATE	NAME	CLASS	SUB CLASS	FILING DATE
	AA	3	2	0	2	4	3	9		05/24/1966	Shatto, Jr. et al.	114	257	
	AB	3	6	0	2	7	0	1		08/31/1971	Boyd, Jr.	700	36	
	AC	3	6	0	8	6	3	0		09/28/1971	Wooden et al.	166	357	
	AD	3	6	4	3	7	3	6		02/22/1972	Talley, Jr.	166	356	
	AE	4	0	4	6	1	0	1		09/06/1977	Neath	166	357	
	AF	4	1	4	9	6	0	3		04/17/1979	Arnold	175	7	
	AC	4	2	9	1	7	7	2		09/29/1981	Beynet	175	5	
	AH	4	5	2	7	6	3	2		07/09/1985	Chaudot	166	357	
	AI	4	5	7	7	7	0	0		03/25/1986	Dellinger et al.	175	40	
	AJ	4	6	5	1	8	3	0		03/24/1987	Richards	175	62	
	AK	4	8	4	8	4	7	5		07/18/1989	Dean et al.	166	357	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							Yes	No
	AL	2 2 6 0 0 8 7	04/07/1993	UK				

OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)

AM		Strand, B. and Bakke, W., "Subsea Separation on the Troll Field," <u>Scandinavian Oil-Gas Magazine</u> , July 8, 1998, pp. 122-124.
AN		Baggs, C., Kent, I., and Allen, John, "Troll Pilot Control System: Advanced Control System for a Subsea Separator," <u>Offshore Technology Conference (OTC) 12154</u> , May 1-4, 2000, pp 1-10.
AO		Arnold, K.E. and Ferguson, P.L., "Tomorrow's Compact Separation Train," <u>Hart's E&P</u> , December 1999, pp. 80-82.
AP		Fjøsne, E., "Subsea Processing – Maximising Value in Areas With Existing Infrastructure," <u>Offshore Technology Conference (OTC) 14008</u> , May 6-9, 2002, pp. 1-5.
AQ		Eriksen, S., "How Can Subsea Processing Remove Topside Processing Constraints," <u>FMC Energy Systems, FMC Kongsberg Subsea</u> , August 30, 2001, 11 pages.
AR		Davalath, J. "Economic Benefits of Compact Subsea Separation System," <u>FMC Energy Systems, Deep Offshore Technology 1999</u> , 14 pages.

Examiner: Date Considered

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.

INFORMATION DISCLOSURE STATEMENT											ATTORNEY DOCKET NO: 022002-03	APPL. NO. 10/717,046	
											APPLICANT David Lush et al.		
											FILING DATE Nov. 19, 2003	GROUP 3672	
U. S. PATENT DOCUMENTS													
*Exam. Initial		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLASS	FILING DATE
	BA	4	9	0	0	4	3	3	02/13/1990	Dean et al.	210	170	
	BB	4	9	8	2	7	9	4	01/08/1991	Houot	166	357	
	BC	5	1	2	9	9	3	1	07/14/1992	Oranje	55	399	
	BD	5	1	5	4	7	4	1	10/13/1992	da Costa Filho	96	157	
	BE	5	4	8	8	9	9	3	02/06/1996	Hershberger	166	372	
	BF	5	7	0	7	4	2	7	03/03/1998	Stockman et al	95	260	
	BG	5	7	2	2	4	9	4	03/03/1998	Landeck et al.	175	7	
	BH	6	0	0	4	3	8	5	12/21/1999	Birmingham	96	174	
	BI	6	0	6	7	3	1	3	05/16/2000	Moore	166	357	
	BJ	6	0	6	8	0	5	3	05/30/2000	Shaw	166	267	
	BK	6	2	1	6	7	8	1	04/17/2001	Knight	166	105.5	
FOREIGN PATENT DOCUMENTS													
		DOCUMENT NUMBER							PUBLICATION DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION
	BL											Yes	No
OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)													
	BM		Songhurst, B.W. and Eyre, G.P., "Experience Gained From the First U.K. Subsea Separator," Offshore Technology Conference (OTC) 6423, May 7-10, 1990, pp. 43-50.										
	BN		Smith, J.R., "The Highlander Field: Eight Years On," Offshore Technology Conference (OTC) 7438, May 2-5, 1994, pp. 177-187.										
	BO		Crook, J. "Seabed Separation First for Troll," Petroleum Review, March 1999, pp. 31-32.										
	BP		"SUBSIS: Subsea Separation and Injection System," ABB Offshore Systems, ABB Oil, Gas & Petrochemicals, (undated), 4 pages.										
	BQ		"Subsea Separation and Injection by ABB's SUBSIS," ABB Offshore Systems , www.abb.com/oilandgas , August 1999, 3 pages.										
	BR		Davalath, J., Wessel, J., and Hatlo, A., "State of the Art in Subsea Pumping Technology," FMC Energy Systems, November 7-9, 2000, 11 pages.										
Examiner:			Date Considered										
*EXAMINER if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and <u>not</u> considered. Include copy of this form with the next communication to applicant.													

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U. S. PATENT DOCUMENTS											
*Exam. Initial		DOCUMENT NUMBER					DATE	NAME	CLASS	SUB CLASS	FILING DATE
	CA	6	2	7	6	4	5	08/21/2001	Gonzalez	166	357
FOREIGN PATENT DOCUMENTS											
		DOCUMENT NUMBER					PUBLICATION DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION
	CB										Yes
OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, Place of Publication, Etc.)											
	CC		"Helico-Axial Multiphase Pump, Deepwater Technology," Multiphase, Guinard Pumps, Textron Fluid Handling Products, May 1989, 12 pages.								
	CD		Technical Bulletin, "Increased Oil Production by Means of Subsea Processing," Framo Engineering AS, Bergen, Norway, January 1999, 4 pages.								
	CE		Technical Bulletin, "Boosting – Increased Oil Production and Recovering Utilizing: Multiphase Pumps, Subsea Separator – SWAG," Framo Engineering AS, Bergen, Norway, November 1999, 4 pages.								
	CF		Technical Bulletin, "Subsea Multiphase Pumps for Shell, Draugen," Framo Engineering AS, Bergen, Norway, May 1999, 4 pages.								
	CG		Technical Bulletin, "Framo Subsea Multiphase Booster Pumps for BP ETAP," Framo Engineering AS, Bergen, Norway, April 1999, 4 pages.								
	CH		"Subsea Multiphase Pump," Kvaerner Eureka a.s., Lier, Norway, (undated), 6 pages.								
	CI		Technical Bulletin, "Increased Oil Production by Means of Subsea Multiphase Boosting," Framo Engineering AS, Bergen, Norway, November 1999, 4 pages.								
	CJ		Rekve, S., "Fourth-Quarter Seafloor Pump Demo Set," Hart's E&P 5 th Deepwater Technology (undated), p. 31.								
	CK		"Multiphase Booster Pumps Provide Efficient Production Tool," Hart's E&P 5 th Deepwater Technology, (undated), p. 32.								
	CL		Bradbury, J., "Pumping Up the Volume," Hart's E&P, October 2001, p. 29.								
	CM		"Hydraulic Turbine Drive Submersible Centrifugal Pumps," Weir Pumps, November 2001, pp. 1-2.								
	CN		Harden, W.G. and Downie, A.A., "Field Trial and Subsequent Large-Scale Deployment of a Novel Multiphase Hydraulic Submersible Pump in Texaco's Catain Field," Offshore Technology Conference (OTC) 13197, April 30-May 3, 2001, pp. 1-19.								
Examiner: _____ Date Considered _____											
*EXAM! If citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and <u>not</u> considered. Include copy of this form with the next communication to applicant.											